CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–II–Semester End Examinations (Advanced Supply) – June- 2025
INFORMATION RETRIEVAL SYSTEM
(CSM)

[Time: 3 Hours]   **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A   (20 Marks)

1. a) What is an Information Retrieval System (IRS)?   [2M]
   b) How IRS differs from traditional databases?   [2M]
   c) Define Indexing.   [2M]
   d) How does hypertext improve IRS functionality?   [2M]
   e) How automatic indexing can improve search efficiency?   [2M]
   f) Define hypertext linkages.   [2M]
   g) Compare SDI with conventional search techniques.   [2M]
   h) How does cognition impact information visualization?   [2M]
   i) Assess the challenges in video retrieval systems.   [2M]
   j) Compare text-based and image-based retrieval systems.   [2M]

PART-B   (50 Marks)

2. Describe the relationship between IRS and Database Management Systems (DBMS) with examples.   [10M]

OR

3. Discuss the functional overview of an IRS and its significance in modern computing.   [10M]

4. Implement an inverted index structure for a text search system.   [10M]

OR

5. Analyze the role of hypertext and XML data structures in web-based information retrieval.   [10M]

6. Explain the concept of term clustering and its impact on document retrieval.   [10M]

OR

7. Apply statistical indexing techniques with an example dataset.   [10M]

8. Analyze how information visualization techniques enhance data retrieval efficiency.   [10M]

OR

9. Evaluate the impact of different search techniques on user experience.   [10M]

10. Justify the role of AI in improving multimedia information retrieval.   [10M]

OR

11. Develop an advanced video retrieval system using deep learning.   [10M]

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